



A DOCPHOENIX

Office Action Summary

Application No.
09/277,198

Applicant(s)
Asao

Examiner
Saeed Ghahramani

Group Art Unit
2834



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-15 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-15 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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Part III DETAILED ACTION

Drawings

The drawings are objected for following reasons:

1. Figures 9-15 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Specification

The specification is objected for following reasons:

2. Page 11, line 4, "portions 91j" should be-- portions 94j--.
3. Page 11, line 8 and page 12, line 9, "surfaces 91m" should be --surfaces 99m--.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Adachi** (JP 9103052) in view of **Kawai** (US 5691590)

Adachi discloses a stator core having a plurality of slots (fig 2), stator coil windings having axially parallel portions being those portions which are substantially parallel to the center axis of said stator coil comprising current generating portions being those portions disposed

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within said slots and generating electric current and projecting portions projecting from the axial end surfaces of said slots (fig 1) and bridge portions being circumferential portions connecting axially parallel portions to each other within each of said windings, that the spatial ratio occupied by said clusters of stator windings belonging to said bridge portions in coil end being those portions of a said stator coil exposed beyond said end surfaces of said slots is at high density (abstract). However, it fails to disclose a stator core wherein the inner circumferential surfaces of the bridge portions are placed in contact with said end surfaces of the stator core without any gaps in the direction of the central axis of a said stator core and a stator coil being cluster of three phases of connected stator windings.

Kawai discloses a stator core wherein the inner circumferential surfaces of the bridge portions are placed in contact with said end surfaces of the stator core without any gaps (col 1, line 66)(abstract) in the direction of the central axis of a said stator core for the purpose of preventing turbulence of cooling fan and reducing the magnetic noise.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify stator winding as taught by **Adachi** and to provide a stator core wherein the inner circumferential surfaces of the bridge portions are placed in contact with said end surfaces of the stator core without any gaps in the direction of the central axis of a said stator core as taught by **Kawai** for the purpose of preventing turbulence of cooling fan and reducing the magnetic noise.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify stator winding as taught by **Adachi** and **Kawai** and to provide clusters of three phases of connected stator windings for the purpose of improving the power and efficiency of the stator.

Ref claim 2, **Adachi** discloses a stator core with a plurality of comb-shaped strips each having a band portion (fig 5) a plurality of teeth disposed substantially parallel to each other extending perpendicularly relative to the longitudinal direction of the band portion and plurality of strips being laminated and formed into a cylindrical shape and ends of the teeth being provided with circumferentially projecting portions (fig 1).

Ref claims 3 and 4, **Kawai** discloses a stator coil with a flat planar shape (col 3, line 43 and 44) for the purpose of winding arrangement with an effective cooling surface.

Re claims 5-15 disclose a method of manufacturing a stator as disclose in claims 1-4 and features together are inherent to the disclosed structure.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Contact Information

7. Any inquiry concerning this communication should be directed to Saeed Ghahramani telephone number (703) 305-1527. The examiner can be reached on Monday-Friday from 8:00 to 4:30 p.m., EST.

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If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Nestor Ramirez, can be reached at (703) 308-1371. The fax number for this group is (703) 305-3431.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist at (703) 308-1728.

SG

June 18, 1999


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